

**A. comata** Lec., Proc. Acad. Sc. Phil., 1858, p. 70. Length, 9.5 mm., .38 inch.

*Habitat*: "One specimen from near Fort Yuma, California."

**A. alacris** Horn, Trans. Am. Ent. Soc., VII, p. 25, Pl. I, Fig. 40. Length, 9 mm., .36 inch.

*Habitat*: "One specimen given to Dr. Leconte by Dr. Sharp, of Scotland, collected by Mr. Hardy in the same region with the preceding."

I am not aware of the existence of any specimens of these species other than the types, and it is a little peculiar, if the above localities are correct, that one or the other should not have turned up again in all the collecting which has since been done in the same region.

## NOTES ON SCOTOGRAMMA AND ONCOCNEMIS WITH DESCRIPTIONS OF NEW SPECIES.

BY JOHN B. SMITH, SC.D.

### **Oncocnemis barnesii**, sp. nov.

Head and collar rich sienna brown. Thorax powdered with whitish and gray, darker posteriorly. Primaries ashen gray at the base, brown beyond the t. p. line. T. a. line black, single, broad, with an even and slight outcurve. T. p. line black, single, broad, the edges not sharply defined, almost upright. In the dusky portion of the wing beyond this line the veins are marked with black scales and there are black streaks in the interspace. There is a black terminal line, followed by a pale line at the base of the fringes. Ordinary spots entirely wanting. Secondaries whitish at base, shading to almost blackish at the fringes which themselves are white. Beneath whitish, a little powdery. Expanse, 1.50 inches = 37 mm.

*Habitat*: Yellowstone Park, Wyo., in August; Dr. Barnes.

A single female example of this very strongly marked species is at hand. There is nothing like it in the genus, and the two simple transverse black lines on the gray ground will suffice to identify it. It has something the appearance of *atrifasciata* without the dark median filling.

### **Oncocnemis melantho**, sp. nov.

Ground color is a mottling of white, gray, black and ocher yellow. Head ocher yellow with some black scales intermingled. Collar yellow with a blackish central band. Thorax mottled, blackish and white, with the tip of the basal tuft yellowish.

Primaries with all the markings fragmentary. The extreme base of the wing is whitish to the black basal line. T. a. line obscurely geminate, the inner part very feebly marked. The outer portion of the line black, oblique to the submedian vein then with an abrupt outcurve. The basal space is black marked on the costa, then there is a whitish shade to the median vein; below this is an ocher yellow shade to the submedian vein which is black marked; below this point it is gray, shading outwardly to ocherous. T. p. line geminate, the outer portion obscure, except on the costa, inner line narrow, black, denticulate on the veins; as a whole with a moderate outcurve over the reniform and an almost equal incurve below. White scales follow the outer points of the line and the veins through the s. t. space are more or less white powdered. The median shade is broad, black and irregular, rather the best defined marking of the wing. The median space is yellowish through the center, grayish through the cell and white marked along the costa. The s. t. line is broken, irregular and marked principally by preceding or following dark shades. The most prominent black shading is on the costa. Another is about the middle of the s. t. space, but is strongly gray powdered. Another shade is on the internal margin and this is also powdered with gray. As a whole the s. t. space may be said to be ocher yellow, palest on the costa and mottled with gray and black scales. The terminal space is mostly gray, with black shadings in the interspaces. There is a broken black terminal line, the fringes are long, yellowish, cut with smoky on the interspaces. The claviform is undefined, ocher yellow. The orbicular is almost round, just a little elongate, whitish, with a few gray central scales. The reniform is a broad lunule outlined by blackish scales, yellow, with a smoky center. Secondaries black at base and outwardly, with a pale straw yellow, central band in which the veins are black marked, and there is a black discal lunule. The fringes are white. Beneath creamy white; both wings with broad black outer margins. Primaries with a black discal spot and the indications of a median band on the costa. The secondaries have the median band fully developed. There is a discal spot, and beyond it indications of an extra median band, which is marked only on the veins. Expanse, 1.36 inches = 34 mm.

*Habitat*: Yosemite Valley, California.

A single specimen was received from Dr. H. G. Dyar, and is numbered 9615. It is a difficult creature to describe owing to the peculiar mottlings. The most prominent feature of the forewing is the black median shade and beyond this the blackish shading in the s. t. space which, however, is broken. It is quite probable that in other specimens the mottling may be somewhat differently distributed. The species belongs with *fasciata* and *pudorata* in which the secondaries are similar; but in the mottled primaries it is unique.

### **Oncocnemis pohono**, sp. nov.

Ground color a dark smoky fuscous. Head and thorax without defined markings; but powdered by a few white scales. Primaries very even in color with the maculation very simply written. Basal line geminate, black. The included space with a very few white scales. T. a. line black, single, preceded by a few white

scales, with three unequal outcurves; the line as a whole only a little outwardly oblique. T. p. line single, black, followed by white scales, marked by little black points on the veins, very abruptly bent below the costa and then very evenly oblique to the hind margin; broken, however, by a feeble incurve below the center of the wing. The claviform is not visible in the specimen. The orbicular very small, round, marked only by an obscure black circllet. Reniform very narrow, lunulate, defined by white scales which give rather a strong contrast. S. t. line irregularly diffuse below. There is a series of narrow black terminal lunules. Secondaries pale at base, becoming smoky outwardly, with an irregular pale line at the base of the fringes which are white tipped. Beneath powdery, ashen gray, the secondaries more whitish toward the base and with a dusky discal spot. Expanse, 1.28 inches = 32 mm.

*Habitat*: High Sierras, California.

A single male was received from Mr. H. G. Dyar, numbered 11138. The name is given at his suggestion and is the Indian term for the Bridal Veil Falls near which, as I understand it, the specimen was taken. The species is quite unlike any other referred to this genus, and this may not be its best place, eventually. It has, however, the essential characters of the genus to which I have referred it, and it is so well marked that its recognition should not be difficult. An accident has rendered the type defective; but all the wings are in good condition.

### ***Oncocnemis melalutea*, sp. nov.**

Ground color a powdery clay yellow. The powdering made up of gray with a few black scales. Head blackish in front. Collar with a black line at base and a white line just below the tip, which is gray. Patagiæ marked with gray scales. Primaries with all the markings present, the basal space and all beyond the t. p. line quite strongly gray powdered, leaving the comparatively clear median space somewhat in relief. Basal line geminate, blackish, the inner line best marked, reaching to the submedian interspace and inclosing a little area which is hardly powdery. T. a. line geminate, blackish, the outer portion of the line best defined; as a whole oblique, a little irregular, but hardly lunulate. T. p. line geminate, blackish brown, strongly outcurved over the cell and well incurved below. The outer portion of the line is absorbed in the dark color of the s. t. space, leaving on the veins a series of white dots that serve to emphasize the otherwise obscure marking. A median shade is traceable on the costa; but is hardly visible below that point. The s. t. line is marked by a series of white dots, which are very irregularly set and can hardly be said to have any connection between them. There is a broken blackish terminal line and the fringes are of the yellowish ground color cut with smoky at the interspaces. The claviform is small, of the ground color, outlined by a few smoky scales. Orbicular round or nearly so, paler than the ground color, outlined by smoky scales. The reniform is moderate in size, broad, somewhat kidney-shaped, paler than the ground color, with a dusky lunule, defined by slightly darker scales. Secondaries a glistening, yellowish white at the base, with a blackish outer border, beyond which is a trace of a blackish

line. The fringes are white beneath, both wings whitish toward the base, with a broad, smoky outer border; the secondaries in addition with a smoky extra-median line, a trace of which is also seen on the primaries. Expanse, 1.20 inches = 30 mm.

*Habitat*: Foothills near Denver, Colorado (Bruce).

The type is a female which has been in my possession for a long time awaiting the advent of a male. None has been received; but as the species seems very distinct I have given it a name. It may be associated with *homogena*, although it is much less sharply marked than that species.

***Oncocnemis corusca*, sp. nov.**

Head, thorax and primaries blackish, more or less mixed with white scales. Head pale powdered, below the vertex more evenly blackish. Thorax without distinct tufting, the scales tipping collar and patagial white. Primaries very dark to the t. p. line with the markings very obscurely marked; the vestiture a little glistening. Basal line marked with gray, and the extreme base of the wing is quite strongly powdered with similar scales. The t. a. line is hardly traceable; but its position is indicated by gray scales. T. p. line white, very obscurely marked to vein 4; but below that point easily traceable through the blackish ground color. S. t. line white, distinct only near the hind angle. The orbicular is small, round, defined by a whitish ring. Reniform moderate in size, kidney-shaped, whitish with a smoky curved line, and from this point begins a whitish powdering that obscures the outer margin of the reniform as well as the upper part of the t. p. line. There is a series of obscure dark terminal lunules. The abdomen is yellowish. Secondaries orange yellow, with a well-defined moderate black outer border; the fringes white. Beneath, primaries smoky, with a yellowish tinge, without obvious markings. Secondaries yellow, with a blackish outer border and a blackish shading in the costal region. Expanse, 1.08 inches = 27 mm.

*Habitat*: Los Angeles, California; Yosemite, California.

I have two male specimens of this species, one of them received from Mr. H. G. Dyar and numbered 9040, taken by Lambert in the Yosemite Valley, the other taken by myself. The species differs obviously from the other yellow winged species of *Oncocnemis* by the obscure marking of the primaries and the somewhat glistening vestiture. In all the other species the markings are quite sharply defined.

***Scotogramma* Smith.**

The species of this genus are increasing in number and several undescribed forms occur in collections. Five of these are in sufficient numbers to warrant description. Five species were recognized in 1889 and differentiated in Vol. XII, Proc. U. S. Nat. Mus., p. 462. Of these I knew the male of one species only. Three species have been since described, but the sexual characters have not been figured.

Males of eight species are now in hand and will be figured when opportunity serves. It will be noted that *phoca*, *uniformis*, *infuscata*, *luteola* and *discolor* agree very closely in general type while sufficiently dissimilar to avoid confusion. The harpes are all a little bent and in each case there are two corneous claspers; the inner longer and more dense in texture, the outer nearer the tip, lying under the other and much lighter in color.

The sketch of *submarina* on Pl. XXII, Fig. 17, Proc. U. S. Nat. Mus., XII, shows an essentially different structure in which both harpe and clasper are concerned. There is a distinct tendency toward some of the species of *Mamestra*; but indeed the other type finds almost equally close relatives in that genus.

The structures in *S. densa* and *S. megiera* differ from the others in the widest possible way, while so closely alike that I was strongly inclined to consider the species identical on this character alone. Yet they differ so much in superficial appearance that I have risked a new name, particularly as the localities in which the two species were found are widely separated and thus far no great range of variation has been noted in the species. I have no males of the described *perplexa*, *concinna* and *umbrosa*, nor of *sedilis* and *conjugata* described in this paper. All these forms are related to each other more nearly than to any of the other species, and it is passing strange that females should be so much the more commonly found.

### **Scotogramma conjugata**, sp. nov.

Ground color ashen gray powdered with smoky and blackish. Palpi reddish brown; the head darker brown in front. Collar with a central black line, below which it is smoky to the head, the tip being very pale gray. The patagiae are crossed by an oblique black line and the posterior tuft is also black marked. Primaries with all the marking fairly visible. The basal space is grayer than the rest of the wing, and is rather larger than usual, because of the distance of the t. a. line from the base. The basal line is black, single, very distinct, outcurved between the veins and reaching the s. m. vein. T. a. line single, black, a little diffuse, evenly oblique to the s. m. interspace; then with a slight incurve to the inner margin. T. p. line blackish, single, lunulate, followed by rather feebly marked pale lunules, strongly bent over the cell and then rather deeply incurved below. A smoky shade on the costa marks the beginning of the s. t. line; but beyond this point it is lost in the uniform gray of the space beyond the t. p. line. There is a vague shading between the veins in the terminal space in one of the specimens before me. The orbicular is black-ringed and extends the full distance between the median lines, so that they are completely connected. As a whole the median space is a trifle darker than any other portion of the wing. The ordinary spots are grayish, incompletely outlined, of moderate size and

best marked by the black filling between them. There is a broken smoky line at the base of the fringes. Secondaries smoky fuscous with a vague trace of a median line. Beneath, fringes powdered; both wings with an outer line which is barely traceable on the fore wings; the hind wings with a discal spot. Expanse, 1.40 inches = 35 mm.

*Habitat*: Garfield County, Colo., 6,000 feet. (Bruce.)

I have two female specimens under examination and believe that I have seen others. The species is a very distinct one by the markings; the black-filled spaces between the ordinary spots and the connected median lines being quite characteristic. Unfortunately no male is at hand, and it is not impossible that the species may have to be transferred to *Mamestra*. The vestiture consists of flattened hair and in the poorer specimen of the two there is a distinct indication of abdominal tufts. The wing form, however, is of the usual type found in this genus and more triangular than in most species of *Mamestra*.

**Scotogramma infuscata**, sp. nov.

Ground color a very dark smoky yellow, strongly black powdered. Head and thorax a little more evenly smoky in color. Primaries with all the markings black and fairly distinct. Basal line distinct, single, black, twice toothed. T. a. line irregular, black, almost upright in general course, irregularly toothed to below the median vein and then with a strong inward tooth on the submedian vein. T. p. line black, lunulate, single, very nearly parallel with the outer margin. There is a somewhat undefined, broad, smoky, median shade, which is bent over the reniform and below that point runs close to and parallel with the t. p. line. S. t. line marked by a smoky preceding shade in which are darker, almost blackish blotches, which emphasize this shade as against the very even and uniform terminal space. There is a broken terminal, dusky line and the fringes have also a dusky interline. Orbicular round, small, outlined by blackish scales. The reniform is vague, hardly traceable in fact in most of the specimens; but sometimes fairly evident as a narrow upright shading. Secondaries smoky fuscous, dusky outwardly, with a vague median line and a faintly marked discal lunule. The fringes are yellow. Beneath, very strongly powdered with yellow, with a well-marked smoky extra-median line, a broad outer margin and a discal lunule. Expanse, 1.25 to 1.45 inches = 23 to 36 mm.

*Habitat*: Colorado, Park County, 10,000 feet, July 9th; 13,000 feet, July 6th; Gibson Mountain, 12,500 feet.

One male and three females, all collected by Mr. Bruce. The insect has almost exactly the same markings that are found in the species previously described and the vestiture is also fine and hairy; but the colors are all very much darker and the insect has quite a different habitus. Mr. Bruce's number is 646.

**Scotogramma discolor**, sp. nov.

Ground color dull gray over a somewhat luteous base. Head and thorax much paler, the hair being quite distinctly yellowish and the anal tuft of the abdomen is also yellowish. Primaries with the basal space yellowish, owing to an admixture of

yellow hair with the vestiture. All the markings more or less obvious. Basal line distinct, single, blackish. T. a. line distinct, geminate, very irregular, as a whole nearly upright. The outer part of the line black, the inner gray. The line is somewhat irregularly toothed to below the median vein and then makes a deep incurve on the submedian vein. T. p. line lunulate, single, blackish, as a whole almost parallel with the outer margin. There is a fairly well marked median shade which is bent over the reniform and from that point runs close to and parallel with the t. p. line. Beyond this line the wing is smoother and more even in color; but is broken by a quadrate dusky patch on the costa, extending to the point usually occupied by the s. t. line. At about the middle there is another almost quadrate dusky shade, extending outwardly to about the same point, and on the inner margin there is a third smoky or dusky shade, outwardly marking what would be the termination of the s. t. line. A series of dusky lunules is at the base of the fringes and beyond them it is cut with dusky. The orbicular is round or nearly so, small, yellowish. The reniform is vague, marked by yellowish hair; but inferiorly darkened by the angle of the median shade. Secondaries smoky, whitish toward the base, especially along the costal margin and with a whitish shade beyond a dusky extra-median line. There is also a dusky discal lunule. Perhaps it would be better to describe these wings as whitish with a broad smoky outer band, a smoky extra-median line which sends in a somewhat dusky shade to the base, and a smoky discal lunule. The fringes are whitish. Beneath whitish powdery, with very distinct discal lunules on all wings, a dusky extra-median shade which is quite sharply limited outwardly and a dusky terminal space, which is particularly marked on the secondaries. On the primaries the fringes are distinctly checkered with smoky yellowish. Expanse, 1.20 inches = 30 mm.

*Habitat*: Park County, Colorado, 13,000 feet (Bruce).

A single male specimen from the U. S. National Museum is the type. The vestiture is hairy and the insect has the appearance of an *Anarta*. Indeed it may be one of the species described in this genus, and yet unknown to me; but the eyes are round and the species cannot therefore be properly placed in that genus. From the described species of *Scotogramma* this insect differs quite strongly by the mottled colors. It should find a place nearest to my *uniformis*.

#### **Scotogramma sedilis**, sp. nov.

Ground color smoky gray, more or less powdery. Head smoky, the palpi a little paler, collar tipped with blackish. The patagiae with a black submargin and the basal tuft also marked with blackish. Primaries with all the markings more or less obscured by the powderings and incomplete. Basal line geminate, one part of the line black, the other smoky, the intervening space a little whitish powdered. The basal space is very broad, more even than the rest of the wing. T. a. line geminate, the outer portion fairly evident, smoky, strongly bent outwardly; the inner parts smoky and sometimes not traceable. T. p. line geminate, lunulate, the inner line narrow, blackish, the points on the veins being strongly marked: the outer line rather a shading which may be absent in some specimens, and with a tendency to a white powdering between the lunules of the inner line. As a whole the line is nearly parallel with the outer margin. S. t. line whitish or pale preceded by a black shading which be-

comes diffuse inwardly. It shows a tendency to break up into spots, especially toward the inner margin. There is a series of small terminal smoky lunules, and a yellowish line is at the base of the fringes. The claviform is small, black marked, and does not extend across the median space though this is very narrow. The ordinary spots are very imperfectly marked; the orbicular varying in shape, sometimes with a smoky center, sometimes entirely gray: the reniform upright or nearly so, not completely outlined in any specimen before me. As a whole the median shade is the darkest part of the wing and between the ordinary spot the shade is deepest of all, so that we have the appearance of a dusky median shade. Secondaries evenly smoky. Beneath smoky, powdery, with more or less obvious outer line and discal lunule. Expanse, 1.25-1.40 inches = 31-35 mm.

*Habitat*: Garfield County, Colo., 6,000 feet (Bruce).

Three female specimens are before me, two of them from the U. S. National Museum, and each different from the other. The markings are all obscured by the powdering, but as a whole the species very much resembles *conjugata* in color and wing form. It differs, however, by having a very strong s. t. line and by lacking the prominent claviform connecting the median lines in the other species. There is also considerable difference in the markings of the head and thorax, so that there does not seem to be any likelihood that the species will prove to be the same, though they are, I think, close allies.

#### **Scotogramma megæra**, sp. nov.

Ground color a powdery pale yellowish gray; body parts without markings. Primaries with all the ornamentation present; but very obscure and difficult to make out. The wings are almost uniformly powdered and the lines are scarcely darker than the powderings. The basal line is very vaguely indicated. T. a. line almost upright, geminate on the costa, with three strong outward angulations. T. p. line lunulate, evenly bent over the cell and then almost parallel with the outer margin. There is a vague paler shading that indicates an s. t. line, and a series of minute dusky terminal lunules, followed by dusky streaks across the fringes; also a vague trace of a median shade. The orbicular is absent in one specimen, marked by a dusky outline in another. The reniform is narrow, dusky, upright, hardly defined. Secondaries whitish at the base, becoming smoky outwardly, the fringes again being whitish. The veins are dark marked and there is a small discal lunule. Beneath the wings are whitish, a little powdered, becoming a little darker outwardly. Primaries with a discal lunule. Secondaries with a small dot. Expanse, 1.40 to 1.45 inches = 35 to 36 mm.

*Habitat*: Glenwood Springs, Colorado in July.

Dr. Barnes has sent me two specimens, male and female. The new species resembles *submarina* and *densa*, but is larger and paler than either. It is perhaps nearest to the former, but the markings are much less evident and the peculiar yellowish tinge is quite different from anything that I have ever seen in other specimens. The vestiture consists of flattened scales.